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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/062,894	01/30/2002	Clinton S. Hartmann	RFSC-0007	2292
27964	7590	05/06/2004		
HITT GAINES P.C. P.O. BOX 832570 RICHARDSON, TX 75083				
			EXAMINER HA, DAC V	
			ART UNIT 2634	PAPER NUMBER
			DATE MAILED: 05/06/2004	

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/062,894

Applicant(s)

HARTMANN, CLINTON S.

Examiner

Dac V. Ha

Art Unit

2634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 1-3, 11-13** are rejected under 35 U.S.C. 102(b) as being anticipated by Devon et al. (US 5,684,871) (hereinafter Devon).

Regarding claim 1, Devon teaches the following claimed subject matter.

“a time period divided into a group of time slots each having a unique phase/time position” (Figure 2, element 200; Abstract; Col. 2, lines 53-60; Col. 4, lines 40-53), wherein the “slots” are 254, 256, etc.;

“multiple pulses distributed among said time slots encoding a data element by said unique phase/time position” (Abstract; Col. 2, lines 53-60; Col. 4, lines 40-53; Col. 4, line 65 to Col. 5, line 7).

Regarding claim 11, see claim 1 above.

Regarding claim 2, Devon further teaches the claimed subject matter “wherein said data element is ascertainable by mapping” in Col. 6, line 41.

Regarding claim 12, see claim 2 above.

Regarding claim 3, Devon further teaches the claimed subject matter “wherein said time slots in said group are adjacent” in Figure 2, elements 254, 256.

Regarding claim 13, see claim 3 above.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 4-10, 14-20** are rejected under 35 U.S.C. 103(a) as being unpatentable over Devon.

Regarding claims 4-10, all these further limitation would have been obvious to a person of ordinary skill in the art as optional.

Regarding claims 14-20, see claims 4-10 above, respectively.

Response to Arguments

5. Applicant's arguments filed 02/17/04 have been fully considered but they are not persuasive.

6. In the REMARKS, pages 3-4, of the amendment filed on 02/17/04, applicant has argued that "Devon describes a system that uses only one slot out of a frame of slots to encode data" and "Devon does not disclose encoding data with multiple pulses assigned to a larger number of time slots". For instance, claim 1 of the present application calls for "multiple pulses distributed among said time slots". Devon dose use "multiple pulses" as evidenced in Figure 2, wherein each binary value is represented by more than one pulse in each time slot. Further, these pulses are "distributed among said time slots" in that the pulses are distributed among time slots P1, P2, etc. in Figure

2. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Regarding the dependent claims (4-10, 14-20), in response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the claimed subject matter in claims 4-10, 14-20 would have been optional to one skilled in the art for reason followed. Devon utilizes a combination of pulse position and signal characteristic to encode data. The characteristics may be a particular frequency, amplitude or phase, as example (Abstract). By doing so, Devon fulfills a motivation of increasing data rate while maintaining resistance to low frequency noise (Col. 5, lines 2-4). With that in mind, a person of ordinary skill in the art would have understood the arrangement of the pulses in combination with other characteristic could have been varied or modified based upon that basic concept. For example, claim 4 of the present application calls for "said time slots in said group are not adjacent". Based upon Devon utilization of the guard band, additional guard band could have been introduced between the time slots to prevent the encroachment from one time slot into another (Col. 6, lines 15-17). Similarly in other

dependent claims, these other claimed subject matter would have been optional to a person of ordinary skill in the art based on the level of data rate and detection capability requirement of the designed system.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dac V. Ha whose telephone number is 703-306-5536. The examiner can normally be reached on 5/4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 703-305-4714. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dac V. Ha
Examiner
Art Unit 2634



STEPHEN CHIN
SUPERVISORY PATENT EXAMINER
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